

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the Claims:

1. (CURRENTLY AMENDED) A floating head liquid dispenser for dispensing liquid onto a substrate, comprising:

a support member mounted for linear movement toward and away from the substrate;

a liquid dispensing head operatively connected to said support member and capable of linear movement relative thereto upon contact with the substrate, said liquid dispensing head having a liquid flowpath extending therethrough terminating in an outlet for dispensing fluid onto the substrate; and

a linear displacement sensor operatively connected to said support member and said liquid dispensing head, said linear displacement sensor being capable of generating a signal that indicates a sensed displacement of said liquid dispensing head relative to said support member.

2. (ORIGINAL) The floating head liquid dispenser of claim 1 wherein said linear displacement sensor comprises a linear encoder.

3. (ORIGINAL) The floating head liquid dispenser of claim 2 wherein said linear encoder comprises an optical read head mounted on one of said support member and said liquid dispensing head, and a graduated linear scale mounted on said other capable of being read by said optical read head.

4. (ORIGINAL) The floating head liquid dispenser of claim 1 further comprising a robotic control mechanism operatively connected to said support member for moving said support member toward and away from the substrate, said linear displacement sensor being coupled to said robotic control mechanism for applying the signal to said robotic control mechanism that indicates a sensed displacement of said liquid dispensing head relative to said support member.

5. (ORIGINAL) The floating head liquid dispenser of claim 4 wherein said robotic control mechanism is responsive to the signal applied from said linear displacement sensor to stop movement of said support member toward the substrate.

6. (ORIGINAL) The floating head liquid dispenser of claim 4 wherein said robot control mechanism is responsive to the signal applied from said linear displacement sensor to provide an alert.

7. (CURRENTLY AMENDED) A floating head liquid dispenser for dispensing liquid onto a substrate, comprising:

a robotic control mechanism;

a support member operatively connected to said robotic control mechanism for linear movement toward and away from the substrate under control of said robotic control mechanism;

a liquid dispensing head operatively connected to said support member and capable of linear movement relative thereto upon contact with the substrate, said liquid dispensing head having a liquid flowpath extending therethrough terminating in an outlet for dispensing fluid onto the substrate; and

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a linear encoder operatively connected to said support member and said liquid dispensing head, and coupled to said robotic control mechanism, said linear encoder being capable of applying a signal to said robotic control mechanism that indicates a sensed displacement of said liquid dispensing head relative to said support member.

8. (ORIGINAL) The floating head liquid dispenser of claim 7 wherein said linear encoder comprises an optical read head mounted on one of said support member and said liquid dispensing head, and a graduated linear scale mounted on said other capable of being read by said optical read head.

9. (ORIGINAL) The floating head liquid dispenser of claim 7 wherein said robotic control mechanism is responsive to the signal applied from said linear encoder to stop movement of said support member toward the substrate.

10. (ORIGINAL) The floating head liquid dispenser of claim 7 wherein said robot control mechanism is responsive to the signal applied from said linear encoder to provide an alert.

11-19. WITHDRAWN.

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